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Comments:

Pursuant to your request attached is pages 3-7 of the Response to Office Action dated September 22, 2003.

Docket No.: PT-1042 USN

IN THE CLAIMS

This listing of the claims replaces all prior versions of the claims in the application.

1. (Original) An isolated polynucleotide comprising a polynucleotide sequence selected from the group consisting of:

a) a polynucleotide sequence selected from the group consisting of SEQ ID NO:1-14,

b) a naturally occurring polynucleotide sequence having at least 90% sequence identity to a polynucleotide sequence selected from the group consisting of SEQ ID NO:1-14,

c) a polynucleotide sequence complementary to a),

d) a polynucleotide sequence complementary to b), and

e) an RNA equivalent of a) through d).

2.-3. (Canceled)

4. (Original) A composition for the detection of expression of disease detection and treatment molecule polynucleotides comprising at least one of the polynucleotides of claim 1 and a detectable label.

5. (Original) A method for detecting a target polynucleotide in a sample, said target polynucleotide having a sequence of a polynucleotide of claim 1, the method comprising:

a) amplifying said target polynucleotide or fragment thereof using polymerase chain reaction amplification, and

b) detecting the presence or absence of said amplified target polynucleotide or fragment thereof, and, optionally, if present, the amount thereof.

6. (Original) A method for detecting a target polynucleotide in a sample, said target polynucleotide comprising a sequence of a polynucleotide of claim 1, the method comprising:

a) hybridizing the sample with a probe comprising at least 20 contiguous nucleotides comprising a sequence complementary to said target polynucleotide in the sample, and which

probe specifically hybridizes to said target polynucleotide, under conditions whereby a hybridization complex is formed between said probe and said target polynucleotide, and

b) detecting the presence or absence of said hybridization complex, and, optionally, if present, the amount thereof.

7.-8. (Canceled)

9. (Original) A recombinant polynucleotide comprising a promoter sequence operably linked to a polynucleotide of claim 1.

10. (Original) A cell transformed with a recombinant polynucleotide of claim 9.

11. (Canceled)

12. (Original) A method for producing a disease detection and treatment molecule polypeptide, the method comprising:

a) culturing a cell under conditions suitable for expression of the disease detection and treatment molecule polypeptide, wherein said cell is transformed with a recombinant polynucleotide of claim 9, and

b) recovering the disease detection and treatment molecule polypeptide so expressed.

13. (Currently Amended) A purified disease detection and treatment molecule polypeptide (MDDT) selected from the group consisting of:

a) a polypeptide comprising the polypeptide encoded by SEQ ID NO:4, and

b) a polypeptide comprising a naturally-occurring amino acid sequence at least 90% identical to the amino acid sequence of the polypeptide encoded by SEQ ID NO:4.

14. (Canceled)

15. (Currently Amended) A method of identifying a test compound which specifically binds to the disease detection and treatment molecule polypeptide of claim 13, the method comprising ~~the steps of~~:

a) providing a test compound;

b) combining the disease detection and treatment molecule polypeptide with the test compound for a sufficient time and under suitable conditions for binding; and

c) detecting binding of the disease detection and treatment molecule polypeptide to the test compound, thereby identifying the test compound which specifically binds the disease detection and treatment molecule polypeptide.

16. (Previously Presented) A microarray wherein at least one element of the microarray is a polynucleotide of claim 1.

17. (Currently Amended) A method for generating a transcript image of a sample which contains polynucleotides, the method comprising ~~the steps of~~::

a) labeling the polynucleotides of the sample,

b) contacting ~~the elements of~~ the microarray of claim 16 with the labeled polynucleotides of the sample under conditions suitable for the formation of a hybridization complex, and

c) quantifying the expression of the polynucleotides in the sample.

18. (Canceled)

19. (Original) A method of claim 6 for toxicity testing of a compound, further comprising

(c) comparing the presence, absence or amount of said target polynucleotide in a first biological sample and a second biological sample, wherein said first biological sample has been contacted with said compound, and said second sample is a control, whereby a change in presence, absence or amount of said target polynucleotide in said first sample, as compared with said second sample, is indicative of toxic response to said compound.

20. (Original) A method for screening a compound for effectiveness in altering expression of a target polynucleotide, wherein said target polynucleotide comprises a polynucleotide sequence of claim 1, the method comprising:

a) exposing a sample comprising the target polynucleotide to a compound, under conditions suitable for the expression of the target polynucleotide,

b) detecting altered expression of the target polynucleotide, and

c) comparing the expression of the target polynucleotide in the presence of varying amounts of the compound and in the absence of the compound.

21.-56. (Canceled)

57. (Previously Presented) A method for assessing toxicity of a test compound, said method comprising:

a) treating a biological sample containing nucleic acids with the test compound;

b) hybridizing the nucleic acids of the treated biological sample with a probe comprising at least 20 contiguous nucleotides of a polynucleotide of claim 1 under conditions whereby a specific hybridization complex is formed between said probe and a target polynucleotide in the biological sample, said target polynucleotide comprising a polynucleotide sequence of a polynucleotide of claim 1 or fragment thereof;

c) quantifying the amount of hybridization complex; and

d) comparing the amount of hybridization complex in the treated biological sample with the amount of hybridization complex in an untreated biological sample, wherein a difference in the amount of hybridization complex in the treated biological sample is indicative of toxicity of the test compound.

58. (Previously Presented) An array comprising different nucleotide molecules affixed in distinct physical locations on a solid substrate, wherein at least one of said nucleotide molecules comprises a first oligonucleotide or polynucleotide sequence specifically hybridizable with at least 30 contiguous nucleotides of a target polynucleotide, said target polynucleotide having a sequence of claim 1.

59. (Previously Presented) An array of claim 58, wherein said first oligonucleotide or polynucleotide sequence is completely complementary to at least 30 contiguous nucleotides of said target polynucleotide.

60. (Previously Presented) An array of claim 58, which is a microarray.

61. (Previously Presented) An array of claim 58, further comprising said target polynucleotide hybridized to said first oligonucleotide or polynucleotide.

62. (Previously Presented) An array of claim 58, wherein a linker joins at least one of said nucleotide molecules to said solid substrate.

63. (Previously Presented) An array of claim 58, wherein each distinct physical location on the substrate contains multiple nucleotide molecules having the same sequence, and each distinct physical location on the substrate contains nucleotide molecules having a sequence which differs from the sequence of nucleotide molecules at another physical location on the substrate.